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**Yang et al.**

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(54) **PROCESS FOR MAKING AN INGESTIBLE FILM**

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(52) **U.S. Cl.** ..... **264/211.12; 264/260; 264/234**

(58) **Field of Classification Search** ..... None  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

307,537 A	11/1884	Foulks
688,446 A	12/1901	Stempel
2,142,537 A	1/1939	Tisza
2,277,038 A	3/1942	Curtis
2,352,691 A	7/1944	Curtis
2,501,544 A	3/1950	Shrontz
2,980,554 A	4/1961	Gentile et al.
3,007,848 A *	11/1961	Stroop ..... 424/441
3,249,109 A	5/1966	Maeth et al.
3,444,858 A	5/1969	Russell
3,536,809 A	10/1970	Applezweig
3,551,556 A	12/1970	Kliment et al.

(Continued)

**FOREIGN PATENT DOCUMENTS**

DE 2432925 B2 1/1976

(Continued)

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(57) **ABSTRACT**

The invention relates to film products containing desired levels of active components and methods of their preparation. Desirably, the films disintegrate in water and may be formed by a controlled drying process, or other process that maintains the required uniformity of the film. Desirably, the films may be exposed to temperatures above that at which the active components typically degrade without concern for loss of the desired activity.

**9 Claims, 33 Drawing Sheets**

